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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/643,253	08/19/2003	David F. Hepner	SJO920020114US1	4638
35060	7590	01/24/2005	EXAMINER	
THE LAW OFFICE OF IDO TUCHMAN 69-60 108ST., SUITE 503 FOREST HILLS, NY 11375			LE, JOHN H	
			ART UNIT	PAPER NUMBER

2863

DATE MAILED: 01/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/643,253

Applicant(s)

HEPNER ET AL.

Examiner

John H Le

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09/08/2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>08/19/2003</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claims 21-22 are objected to because of the following informalities:

The numbering of claims 21-22 are not in accordance with 37 CFR 1.126 which requires the original numbering of the claims to be preserved throughout the prosecution.

Misnumbered claims 21-22 been renumbered 21, 22, and 23.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clark et al. (USP 6,104,304) in view of Blomberg et al. (USP 5,781,024).

Regarding claims 1-2, 8, 13, 17-18, and 23, Clark et al. teach a system for predicting the failure of an electronic circuit (Col.3, lines 41-59), the system comprising; a current monitor (85) configured to receive a measured value for a current draw (90) to the electronic circuit from at least one voltage source (95); a circuit state monitor (85) configured to determine at least one operating condition of the electronic circuit; and a failure alert unit (165) configured to provide an alert notification when the current draw to the electronic circuit is outside a pass range

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at the measured environmental condition and the measured operating condition of the electronic circuit (e.g. Fig.3, Col.3, lines 6-40).

Clark et al. fail to teach an environment monitor configured to receive a measured value for at least one environmental condition of the electronic circuit; and a failure alert unit configured to provide an alert notification when the current draw to the electronic circuit is outside a pass range at the measured environmental condition and the measured operating condition of the electronic circuit.

Clark et al., however, disclose a failure alert unit (165) configured to provide an alert notification when the current draw to the electronic circuit is within a pass range (Fig.3, Col.3, lines 38-40, Col.4, lines 12-19). It would be obvious to one of ordinary skill in the art at the time the invention was made to include a failure alert unit (165) configured to provide an alert notification when the current draw to the electronic circuit is within a pass range is considered substitute as claimed if the condition current pass range is setting in test mode program of the programmable microcontroller.

Blomberg et al. teach an environment monitor (temperature control 102) configured to receive a measured value for at least one environmental condition (temperature, 84) of the electronic circuit (54) (Figs.4-5, Col.5, lines 12-24, Col.6, lines 11-21).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to include an environment monitor configured to receive a measured value for at least one environmental condition as taught by Blomberg

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et al. in a system for predicting the failure of an electronic circuit of Clark et al. for the purpose of providing a performance verification system for detecting failure of electronic circuit (Blomberg et al., Col.3, lines 23-37).

Regarding claims 3, 9, 19, Clark et al. teach the operating condition includes a CPU utilization level (85, Fig.3, Col.7, lines 32-49).

Regarding claims 4, 10, 20, Clark et al. teach the operating condition includes a clock frequency (100, Fig.3, Col.9, lines 35-45).

Regarding claims 5, 11, Clark et al. teach recording the current draw and environmental condition of the electronic circuit in a circuit log (e.g. Fig.5).

Regarding claim 6, Clark et al. teach if the electronic circuit fails, isolating the electronic circuit from among a plurality of potentially failed electronic circuits in the electronic device using the recorded current draw and environmental condition of the electronic circuit (e.g. Col.4, lines 25-32).

Regarding claims 7, 12, 16, 22, Clark et al. teach monitoring the current draw of significant circuit functions (e.g. Col.7, lines 6-19).

Regarding claim 14, Clark et al. teach recording the current draw in nonvolatile memory (e.g. Col.5, lines 52-54, Col.6, lines 6-17).

Regarding claim 15, Blomberg et al. disclose placing the assembled electronic circuit in a controlled environment (102)(Figs.4-5, Col.5, lines 12-24, Col.6, lines 11-21).

Regarding claim 21, Clark et al. teach computer readable program code configured to cause the program (test mode program) to record the current draw

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and environmental condition of the electronic circuit in a circuit log (e.g. Fig.5, Col.7, lines 60-62).

Other Prior Art

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Lane (USP 5,512,883) discloses a method and device for monitoring the operation of a motor; the current drawn by the motor is sensed a preselected time after a peak of current is sensed. This sensed current is then compared to both a minimum and a maximum current threshold value to determine whether the sensed current is inside or outside the range of currents defined by the minimum and maximum current threshold values and provide for both a quicker and more extensive detection of faults in a motor.

Contact Information

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John H Le whose telephone number is 571-272-2275. The examiner can normally be reached on 8:00 - 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John E Barlow can be reached on 571-272-2269. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

John H. Le

Patent Examiner-Group 2863

January 12, 2005



John Barlow
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Technology Center 2800